

L 12082-66

ACC NR: AP5024709

insight in the physical nature of the problem and can be useful in an analysis of kinetic problems under conditions of spatial inhomogeneity of microscopic scale. It can also be used in the microscopic theory of Brownian motion for the derivation of an equation for conditional probability function. A possible way of extending the limits of applicability of the present low-mobility theory is indicated. Authors are grateful to A. I. Ansel'm for a useful discussion. Orig. art. has: 3 figures and 97 formulas. 4/65

SUB CODE: 201 SUBM DATE: 30Mar65/ NR REF Sov: 008/ OTH REF: 009

Card

oc  
2/2

L 10733-66 ENT(1) IJP(c) MV/GG

ACC NR: AP6000228

SOURCE CODE: UR/0056/65/049/005/1664/1680

44,55 44,55

AUTHOR: Pavlov, S. T.; Firsov, Yu. A.

44,55

ORG: Institute of Semiconductors, Academy of Sciences, SSSR (Institut poluprovodnikov Akademii nauk SSSR)

TITLE: Spin-magnetophonon resonance and the magnetoresistance oscillations in semiconductors

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 5, 1965, 1644-1680

TOPIC TAGS: galvanomagnetic effect, magnetophonon resonance, magnetoresistance, Landau level, spin flip, semiconducting material, magnetic field, electron interaction, electron scattering, phonon interaction

ABSTRACT: A theory of a "new" internal resonance in semiconductors (called "spin-magnetophonon" resonance by the authors) and a theory of various aspects of this phenomenon in galvanomagnetic effects are developed from a theory previously worked out by the authors for the interaction between electrons and optical phonons leading to transitions involving spin flip. It is shown that if the spin subbands of the Landau magnetic bands are split by a quantizing magnetic field, spin-magnetophonon resonance leads to oscillations of the transverse  $\rho_{xx}$  and longitudinal  $\rho_{zz}$  magnetoresistance. The nature of the extremum on the oscillation curve of the longitudinal magnetoresistance at the point corresponding to the resonance value of the magnetic

Card 1/2

L 10733-66

ACC NR: AP6000228

field depends on 1) the presence of some additional electron spin flip scattering mechanism which interferes with scattering on optical phonons (electron scattering with spin flip on acoustic phonons has been considered) and 2) on the relation between this mechanism and other scattering mechanisms. The equilibrium electron energy distribution is assumed to be of the Boltzmann type. The results are in agreement with the experimental data. Orig. art. has: 52 formulas and 1 figure.

[CS]

SUB CODE: 20/ SUBM DATE: 15Jun65/ ORIG REF: 014/ OTH REF: 009/ ATD PRESS:

4162

PC  
Card 2/2

L 22060-66 EWT(1)

ACC NR: AP6009641

SOURCE CODE: UR/0181/66/008/003/0666/0679

63

62

B

AUTHOR: Kudinov, Ye. K.; Firsov, Yu. A.

ORG: Institute of Semiconductors, AN SSSR, Leningrad (Institut poluprovodnikov  
AN SSSR)

TITLE: Some relations in kinetics and their stochastic interpretation

SOURCE: Fizika tverdogo tela, v. 8, no. 3, 1966, 666-679

TOPIC TAGS: irreversible process, electric conductivity, dipole moment, distribution function, stochastic process, physical diffusion, Brownian motion

ABSTRACT: This is a companion to an earlier paper by the authors (ZhETF v. 49, 867, 1965), dealing with the linear theory of irreversible processes,<sup>2</sup> and particularly with the Kubo formula for the electric conductivity.<sup>3</sup> In this paper a different approach is used, and the Kubo formula is recast in a form in which the conductivity is expressed in terms of the correlator of dipole moments. The problem is formulated in the k-representation and is reduced to a determination of the symmetrical part (with respect to k) of the distribution function in the presence of weak spatial dispersion. Such a formulation is not convenient for direct calculation of the mean square of the displacement and of the diffusion coefficient. For interpretation of the processes which occur in configuration space, the prob-

Card 1/2

L 22060-66

ACC NR: AP6009641

lem is reduced to finding functions of the conditional-probability type, which are solutions of the corresponding integro-differential equations obtained by the method of O. V. Konstantinov and V. I. Perel' (ZhETF v. 39, 197, 1960), describing a stochastic process which may be Brownian motion of an object in phase space. It is shown that in the linear approximation in the concentration, the method of Konstantinov and Perel' admits of further improvement and yields new exact formulas for the electric conductivity, making it possible to trace many interesting analogies with the process of Brownian motion. In the case of narrow bands, the carrier motion is described by a stochastic equation of the Kolmogorov-Feller type. In the case of broad bands the motion is of the random-walk type. In the case of low current density it is shown that the conductivity formula no longer has the angular dependence characteristic of the solution of Konstantinov and Perel'. The authors thank Yu. N. Obraztsov for interesting critical remarks. Orig. art. has: 59 formulas.

SUB CODE: 20/ SURM DATE: 28Jun65/ ORIG REF: 007/ OTH REF: 011

Card 2/2 MG5

ZVORYKIN, P.A., inzhener; FIRSOV, Yu.M.

The mounting of anchor and mooring capstans. Sudostroenie 22 no.3:  
36 Mr '56.  
(Capstan) (MLRA 9:8)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9

FIRSOV, Z., polkovnik; YABLOCHKOV, N., podpolkovnik

New manual on sports activity. Voen. vest. 42 no.7:62-63 J1  
'62.

(Military sports)

(MIRA 15:6)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9

FIRSOV, Z<sup>R</sup>, Col  
A

Listed as author of article, "For a Higher Level of Physical Training of Artillerymen," which appeared in Artillerivskiy Zhurnal, No 7, 1954.  
Sovetskaya Armiya, Group of Soviet Forces, Germany, 16 Jul 54

SO: SUM 291, 2 Dec 1954

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9"

FIRSOV, Z. P.

A short manual on medical gymnastics for the treatment of war traumas      Moscow,  
Medgiz, 1942.    118 p.

~~FIRSOV, Z.P., polkovnik; BULANOVSKIY, A.V., polkovnik, redaktor; RUDIN,~~  
~~M.Y., podpolkovnik, redaktor; MEZHERITSKAYA, N.P., tekhnicheskiy~~  
redaktor

[Increase physical training] Povyshai fizicheskuiu zdakku. Moskva,  
Voen. izd-vo Ministerstva oborony SSSR, 1954. 79 p. (MLRA 8:6)  
(Physical education and training, Military)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9

FIRSOV, Z.P.

Learn to swim. Zdorov'e l no.7:32 J1 '55

(SWIMMING)

(MIRA 9:5)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9

FIRSOV, Z., polkovnik meditsinskoy sluzhby.

Endurance of the soldier. Voen.znan. 33 no.6:18-19 Je '57.

(Physical fitness)  
(Physical education and training, Military)

(MLRA 10:8)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9

FIRSOV, Z.

A camera is my fellow passenger. Sov. foto 18 no. 5:79-81 My '58.  
(Photography) (MIRA 11:5)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9

FIRSOV, Z., polkovnik

Agility, strength, stamina. Voen.znan. 36 no.8:13-14  
Ag '60. (MIRA 13:7)  
(Russia--Army--Physical training)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9"

FIRSOV, Z.P., polkovnik

Types of sports with a military application. Komm. Vooruzh. Sil  
3 no. 23:87 D '62. (MIR 16:2)

1. Zamestitel' predsedatelya Sportivnogo komiteta Ministerstva  
oborony SSSR.  
(Physical education and training, Military)

VOGULKINA, T.E., dotsent; SINYAVSKAYA, O.A.; FIRSOVA, A.D.

Practice in treating exudative diathesis in children; from  
data of the Sverdlovsk Pediatric Railway Hospital. Pediatrilia  
42 no.1:82-85 Ja'63 (MIRA 16:10)

1.Iz kafedry propedevtiki detskikh bolezney (zav. - dotsent  
T.E.Vogulkina)Sverdlovskogo meditsinskogo instituta.  
(SVERDLOVSK-DIATHESIS)

ACC NR: AP6035879 (A,N) SOURCE CODE: UR/0413/66/000/020/0104/0104

INVENTOR: Gol'dat, S. Yu.; Sokolova, R. V.; Firsova, A. F.; Kadakova, L. P.; Parfenova, A. I.; Karakishisheva, T. I.; Stepanova, N. V.

ORG: none

TITLE: *Actinomyces aureofaciens* strain LSB-181, producing chlortetra-cycline and tetracycline. Class 30, No. 187242. [Announced by All-Union Scientific Research Institute for Antibiotics (Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 104.

TOPIC TAGS: antibiotic, drug, *Actinomyces aureofaciens*, chlortetra-cycline, tetracycline

ABSTRACT: An Author Certificate has been issued for strain LSB-181 of *Actinomyces aureofaciens*. Light-sensitive mycelia in 5-6 mm colonies appear on its tenth day of growth on no. 12 organic agar medium at 28C. On no. 11 synthetic medium, dirty-white colonies 2.5-3 mm in diameter appear, and on pea medium, brown, raised, wrinkled, as porulating colonies seven mm in diameter are found. Milk is completely peptonized on the tenth day, and coagulation is noted on the 15th day, at which

Card 1/2

UDC: 615.45:615.779.931

ACC NR: AP6035879

time the gelatin is also slightly liquified. The sporophores lack coils, and spores are rectangular and oval. Activity in laboratory conditions on regulation media with corn extract is of the order of 5000—5600 j/ml. Also, this strain is resistant to actinophages 22 and 22a. [WA-50]

SUB CODE: 06/ SUBM DATE: 28May65

Card 2/2

ACC NR: AP6035879

(A,N)

SOURCE CODE: UR/0413/66/000/020/0104/0104

INVENTOR: Gol'dat, S. Yu.; Sokolova, R. V.; Firsova, A. P.; Kadakova, L. P.; Parfenova, A. I.; Karakishisheva, T. I.; Stepanova, N. V.

ORG: none

TITLE: Actinomyces aureofaciens strain LSB-181, producing chlortetra-cycline and tetracycline. Class 30, No. 187242. [Announced by All-Union Scientific Research Institute for Antibiotics (Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 104

TOPIC TAGS: antibiotic, drug, Actinomyces aureofaciens, chlortetra-cycline, tetracyclineABSTRACT: An Author Certificate has been issued for strain LSB-181 of Actinomyces aureofaciens. Light-sensitive mycelia in 5-6 mm colonies appear on its tenth day of growth on no. 12 organic agar medium at 28C. On no. 11 synthetic medium, dirty-white colonies 2.5-3 mm in diameter appear, and on pea medium, brown, raised, wrinkled, as porulating colonies seven mm in diameter are found. Milk is completely peptonized on the tenth day, and coagulation is noted on the 15th day, at which

Card 1/2

UDC: 615.45:615.779.931

ACC NR: AP6035879

time the gelatin is also slightly liquified. The sporophores lack coils, and spores are rectangular and oval. Activity in laboratory conditions on regulation media with corn extract is of the order of 5000—5600 j/ml. Also, this strain is resistant to actinophages 22 and 22a. [WA-50]

SUB CODE: 06/ SUBM DATE: 28May65

Card 2/2

SHCHERBATEKO, V.V.; GOGOBERIDZE, N.I.; GOLUBEV, N.A.; FIRSOVA, A.V.;  
NIKOLAYEVA, N.N.; YEVSEYEVA, A.M.; KONTORSKAYA, Z.D.

Development of optimum systems for baking different wheat bread  
varieties in order to improve their taste and flavor character-  
istics. Trudy TSNIIKHP no.10:43-52 '62.  
(MIRA 18:2)

FIRSOVA, E. V.,

"Coefficients Characterizing the Drying of Individual Wood Specimens," p 324,  
Aerodynamic and Heat Transfer Problems in Boiler and Furnace Processes; A Collection  
of Articles, Moscow, Gosenergoizdat, Moscow, 1958. 329 p.

Purpose: The book is intended for engineers and combustion specialists concerned  
with the design and operation of heating equipment and it is also for scientific  
workers and students of vtuzes.

35045  
S/693/61/000/000/003/007  
D203/D302

26. 5400

AUTHORS: Minchenko, F.P. and Firsova, E.V.

TITLE: Heat transfer to water and water solutions of lithium salts during bubble boiling in a large volume

SOURCE: Kutateladze, S.S. ed. Voprosy teplootdachi i gidravliki dvukhfaznykh sred; sbornik statey, Moscow, Gosenergoizdat, 1961, 117-128

TEXT: Results were obtained for water and solutions of LiBr and LiCl. Heat load  $q$ , pressure  $p$  and concentration  $k$ , were varied. Three different steel tubes were used. Their surfaces were carefully prepared and stabilized in the working conditions before resuming tests. The tube was heated with a low voltage, high intensity current. An additional heater helped to speed up the heating. Three chromel-alumel thermocouples and two mercury thermometers were fitted. The following measurements were taken: Vapor pressure, current and voltage drop  $\Delta U$  on the working length of the tube; temperature of boiling liquid; temperature of air inside the

Card 1/2

Heat transfer to water and ...

S/693/61/000/000/003/007  
D203/D302

sealed tube (equal to that of the inner surface). The temperature of the external surface of the tube was obtained as a difference between the temperatures of the inner surface and the drop across the tube wall. From the measure data the coefficient of heat transfer was calculated. The values of the coefficient  $\alpha$  for water agree with those given by other investigators and obey the law Eq.3  $\alpha = Af(p)q^n$ . A graph of the function  $f(p)$  is given separately. The two salt solutions also obeyed the law (3) and Eq.(5) where  $A_1 = 0.75$  and 0.8 for solutions of LiCl and LiBr respectively. There are 8 figures, 2 tables and 18 references: 13 Soviet-bloc and 5 non-Soviet-bloc. [Abstracter's note: References illegible on photostat].

Card 2/2

L 17134-63ACCESSION NR: AP3000439 EPR/EPF(c)/EWT(1)/EPF(n)-2/BDS AFFTC/ASD/SSD Ps-4/Pr-4/Pu-4  
S/0170/63/006/005/0017/0022 WWAUTHOR: Firsova, E. V.

TITLE: Investigation of heat transfer and hydraulic resistance in the flow of water around a bundle of tubes

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 6, no. 5, 1963, 17-22

TOPIC TAGS: heat transfer, hydraulic resistance, flow around tube, Mikheyev, Mikheyev formula, Blasius equation, Blasius curve, Reynolds number, flow, tube

ABSTRACT: The hydraulic resistance and conditions of heat transfer when water flows past a bundle of circular tubes arranged in a triangular lattice with a relative pitch  $s/d = 1.2$  were studied. The apparatus is shown in Fig. 1 of Enclosure 1. Two materials, copper and steel, were used for the center tube of the bundle. The Reynolds number varied between  $1 \times 10^4$  and  $3 \times 10^4$ . The experimental mean heat transfer coefficients were found to agree closely with those calculated from Mikheyev's formula for circular tubes (Mikheyev, M. A., Osnovy teploperedachi, GTEI, 1956—equation (5)) using the hydraulic diameter as the effective dimension. The hydraulic resistance was measured for turbulent flow under isothermal and non-isothermal conditions and compared with that predicted by the Blasius equation. The values

Card 1/3

L 17134-63

ACCESSION NR: AP3000439

are found to lie above the Blasius curve when the hydraulic diameter is introduced.  
Orig. art. has: 4 figures, 8 formulas, and 1 table.

$$\boxed{Nu = 0,021 Re^{0.8} Pr^{0.4} \left( \frac{Pr_f}{Pr_o} \right)^{0.25}} \quad (5)$$

Mikheyev's formula

ASSOCIATION: Tsentral'nyy kotloturbinnyy institut im. I. I. Polzunova, Leningrad  
(Central Boiler Turbine Institute)

SUBMITTED: 15Oct62

DATE ACQ: 10Jun63

ENCL: Cl.

SUB CODE: PH

NO REF Sov: 003

OTHER: 008

Card 2/3

BORISHANSKIY, V.M.; FIRSOVA, E.V.

Heat transfer in the longitudinal flow of metallic sodium past a  
bank of tubes. Atom. energ. 14 no.6:584-585 Je '63. (MIRA 16:7)  
(Heat--Transmission) (Hydrodynamics)

FIRSOVA, E.V., kand.tekhn.nauk

Heat emission and hydraulic resistance in longitudinal flow of water  
about a bank of tubes. Energomashinostroenie 10 no. 3:41-42 Mr  
'64.  
(MIRA 17:4)

ACCESSION NR: AP4036535

S/0089/64/016/005/0457/0458

AUTHOR: Borishanskiy, V. M.; Firsova, E. V.

TITLE: Heat transfer in separated systems of bars during longitudinal flow of metallic sodium

SOURCE: Atomnaya energiya, v. 16, no. 5, 1964, 457-458

TOPIC TAGS: heat transfer, liquid sodium flow, nuclear reactor, mercury flow  
heat transfer, metallic sodium

ABSTRACT: In a previous communication (Atomnaya energiya 14, 584 (1963)) the authors have reported some results of their investigation of heat transfer during the flow of metallic sodium ( $Pr \approx 0.007$ ) in the space between a system of tubes located in the vertices of an equilateral triangle with a relative slope  $\frac{s}{d} = 1.2$ . These results are now being compared with the data of A. Friedland et. al. (International Developments in Heat Transfer 1961, Part III, ASME, N. Y., 1961) who used mercury in a similar geometry with  $\frac{s}{d} = 1.38$  and 1.75. A formula is deduced from these experiments:  $Nu = 6 / 0.006 Pe$ . Orig. art. has: 1 figure.

Card 1 1/2

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9

ACCESSION NR: AP4036535

ASSOCIATION: None

SUBMITTED: 25Ju163

SUB CODE: NPA

DATE ACQ: 03Jun64

NO REF Sov: 005

ENCL: 00

OTHER: 002

Card 1

2/2

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9"

L 15344-66      EWT(1)/EWP(m)/EWT(m)/ETC(F)/EPP(n)-2/ENG(m)/EWA(d)/EWP(t)/EWP(b)/ETC(m)-6/EWA(1)  
 ACC NR:      AT5016896  
 AUTHOR:      IJP(c)    JD/WW/JG      SOURCE CODE: UR/0000/64/000/000/0377/0384  
 ORG:      none  
 TITLE:      21/44/54      1,55      104  
 of tubes      Heat transfer during longitudinal flow of metallic sodium around a bundle      103  
 2+1

SOURCE: Konvektivnaya teploperedacha v dvukhfaznom i odnofaznom pototakh (Convec-tive heat transfer in two-phase and single-phase flows). Moscow, Izd-vo Energiya, 1964, 377-384

TOPIC TAGS: heat transfer, sodium, liquid metal, fluid flow

ABSTRACT: The paper gives results of an experimental study of heat transfer in the space between tubes arranged in a triangular bundle. Relative pitches of 1.2 and 1.5 were studied using liquid sodium as the coolant at Pecllet numbers of 20-350 and Prandtl numbers of 0.057-0.0072. The experimental equipment is described with the aid of a schematic diagram. Heat transfer from the central tube to the sodium was studied as a function of the rate of flow of the coolant. A formula is given

Card 1/2

L 15344-66

ACC NR: AT5016896

for calculating the heat exchange coefficient. The results are tabulated and graphed. Analysis of the graphs for the temperature field show a section of heat transfer stabilization approximately 50 mm long. A comparison of experimental data for heat exchange by mercury<sup>21</sup> and liquid sodium shows satisfactory agreement with the empirical formula  $Nu = 6 + 0.006 Pe$ . Orig. art. has: 6 figures, 2 formulas, 2 tables.

c20  
SUB CODE: 111 SUBM DATE: 17Nov64/ ORIG REF: 006/ OTH REF: 004

OC  
Card 2/2

TALYZINA, V.A.; TIMOFEYEVSKAYA, Ye.A.; URAZOVA, A.P.; FIRSOVA, G.A.

Use of cell lines from human tumors for the initial selection  
of antineoplastic antibiotics. Antibiotiki 10 no.8:722-724  
Ag '65. (MIRA 18:9)

1. Laboratoriya eksperimental'noy bioterapii spukholey (zav.-  
chlen-korrespondent AMN SSSR prof. M.M. Mayevskiy) Instituta  
eksperimental'noy i klinicheskoy onkologii AMN SSSR, Moskva.

MOROZOVA, A.I.; FIRSOVA, O.N.

Determination of free and combined water in iron and  
aluminum hydroxides. Trudy NPI 146:61-72 '64.

Adsorptive properties of some clays. Ibid. 173-78

(MIRA 18:11)

F.I.R.SHOVA, G.N.  
MOROZOVA, A.I., dots., kand. tekhn. nauk; FIRSOVA, G.N., assist.

Solubility of calcium sulfate in mixtures of salts which are usually present in natural waters. Trudy NPI 27:151-165 '56. (MIRA 10:12)

1. Kafedra fizicheskoy i kolloidnoy khimii Novocherkasskogo politekhnicheskogo instituta.  
(Calcium sulfate) (Solubility) (Salts)

FIRSOVA, G. N., Cand Tech Sci -- (diss) "Scientific-technical bases of the application of clays in the Rostov Oblast' for prospecting boring." Novocherkassk, 1960. 20 pp with graphs; (Ministry of Higher and Secondary Specialist Education RSFSR, Novocherkassk Order of Labor Red Banner Polytechnic Inst im S. Ordzhonikidze); 200 copies; price not given; (KL, 21-60, 126)

BARYSHNIKOV, Yevgeniy Ivanovich; KASHAYEV, Aleksey Nikolayevich,  
kand. ekon. nauk, dots.; FIRSOVA, Iya Alekseyevna;  
KIRAKOZOVA, N.Sh., red.

[Accounting in state commerce] Bukhgalterskii uchet v gosu-  
darstvennoi torgovle. Moskva, Ekonomika, 1964. 446 p.  
(MIRA 17:8)

11-2025, 1-1 A.

Dissertation: "Use of Leather Wastes of Vegetable Tanning for Artificial Leather of the Cardboard Type." Cand Tech Sci, Moscow Technological Inst of Light Industry imeni L. M. Kaganovich, 27 Apr 54. (Vechernyaya Moskva, Moscow, 16 Apr 54)

SO: SUM 243, 19 Oct 1954

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413220019-9"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9

FIRSOVA, K.A.; PAVLOV, S.A.; BADANINA, A.I.

Dependence of surface properties and structure of leather  
fiber on the grinding method used, Kozh.-obuv.prom. no.6:11-15  
Je '59. (MIRA 12:9)  
(Leather)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9"

FIRSOVA, K.A., kand.tekhn.nauk; BADANINA, A.I., kand.tekhn.nauk;  
PAVLOV, S.A., doktor tekhn.nauk; MOTORINA, L.V., tekhn.

Use of carboxyl-containing rubbers in the manufacture of  
artificial leather. Nauch.-issl.trudy VNIIPIK no.12:41-49  
'60. (MIRA 16:2)  
(Leather, Artificial) (Carboxyl groups)

ZOLOTOV, V.I., inzh.; IL'INSKIY, D.Ya., inzh.; Prikhimali uchastiye:  
ALEKSANDROV, V.P., inzh.; SOLOV'IEV, S.S., inzh.; BADANINA,  
A.I., kand.tekhn.nauk; FIRSOVA, K.A., kand.tekhn.nauk;  
KOLOSOVA, G.I., mladshiy nauchnyy sotrudnik

Effect of the geometry of the screw on the conditions of the  
extrusion of artificial leather. Nauch.-issl.trudy VNIIPIN  
no.12:87-95 '60. (MIRA 16:2)

(Leather, Artificial)

BADANINA, A.I., kand.tekhn.nauk; ZOLOTOV, V.I., inzh.; KOLOSOVA. G.I.,  
mladshiy nauchnyy sotrudnik; FIRSOVA, K.A., kand.tekhn.nauk

Use of worm machines for the formation of artificial leather  
compositions. Report No.1. Nauch.-issl. trudy VNIIPIK no.13:32-  
43 '62. (MIRA 18:1)

FIRSOVA, K.A., kand. tekhn. nauk; BADANINA, A.I., kand. tekhn. nauk;  
ZOLOTOV, V.I., inzh.; PAVLOV, S.A., doktor tekhn. nauk

Some characteristics of leather fibers used for the  
manufacture of artificial leather. Report No. 3: Effect  
of the relative moisture of air on the structure formation  
of artificial leather. Nauch.-issl. trudy VNIIPIK no. 14;  
10-15 '63. (MIRA 18:12)

31005. FIRSOVA, K. E.

O roli mikrobnykh assotsiatsiy pri eksperimental'noy gazovoy gangrene.  
Sbornik nauch. Trudov (kazansk. in-t epidemiologii i mikrobiologii), vyp. 1,  
1949 [na obl: 1948], s. 179-201

31006. FIRSOVA, K. E.

Farotsitarnaya reaktsiya pri eksperimental'noy gazovoy gangrenе.  
Sbornik nauch. Trudov (kazansk. in-t epidemiologii i mikrobiologii), Vyp. 1,  
1949 [na obl: 1948], s. 203-17

FIRSOVA, K. F., Dr. Med. Sci., -- (diss) "Data on the pathogenesis of diphtherial intoxication," Kazan', 1961, 18 pp, (Kazan' State Medical Institute), 230 copies, (KL-Supp 9-61, 188)

ACC NR: AP6034520

SOURCE CODE: UR/0016/66/000/010/0054/0058

AUTHOR: Mulchin, I. V.; Firsova, K. F.; Messinova, O. V.

ORG: Kazan University im. Ul'yanov-Lenin (Kazanskiy universitet);  
Kazan Institute for Postgraduate Medicine (Kazanskiy institut  
usovershenstvovaniya vrachey)

TITLE: Some data on desoxyribonucleases of pathogenic Clostridia

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 10,  
1966, 54-58

TOPIC TAGS: bacteria, bacterial genetics, desoxyribonuclease, Cl.  
septicum, Cl. perfringens, anyzyme, chromatography

ABSTRACT: Synthesis and some properties of desoxyribonucleases of  
pathogenic Clostridia were studied. The enzymes of five  
Cl. septicum and 45 Cl. perfringens strains were studied  
using Jeffris' dish method and the Ostwald microviscosimeter.  
Changes in enzyme accumulation were studied according to  
the phases of microbial population development. Enzyme  
synthesis was greatest during the logarithmic growth phase,

Card 1/2

UDC: 576.851.55.06.098.31:577.155.2

ACC NR: AP6034520

and the most active enzyme was found in *Clostridium septicum*. The deoxyribonuclease of *Clostridium perfringens* was weaker, and its activity varied according to culture strain and conditions. The *Clostridia* enzymes studied differed chemically, physiologically, and in their action upon the substrate. A purified preparation of *Clostridium septicum* deoxyribonuclease was obtained by chromatography on an ion-exchange column. The enzyme may thus be described more fully and its role in the pathogenesis of gas gangrene may be determined. Orig. art. has 1 figure and 1 formula. [EL]

[WA-50; CBE No. 14]

SUB CODE: 06/ SUBM DATE: 04Nov65 / ORIG REF: 003/ OTH REF: 013

Card 2/2

FIRSOVA, L. (Gor'kiy)

Motorized repair shops come to the farms. Mest.prom. i khud,  
promys. 2 no.12:24 D '61. (MIRA 14:12)  
(Service industries)

FIRSOVA, L.D.

Symptomatic purpura in nursing infants. Pediatrica no.3:82-83  
My-Je '55. (MLRA 8:10)  
(PURPURA(PATHOLOGY) (INFANTS--DISEASES)

FIRSOVA, L.D.

Protein fractions of the blood serum in tuberculous meningo-  
gitis in children. Probl. tub. no. 8:37-42 '62. (MIRA 16:9)

1. Iz detskoy klinicheskoy bol'nitsy Krasnodara (glavnnyy  
vrach Ye.A.Kuz'mina)  
(MENINGES--TUBERCULOSIS) (BLOOD PROTEINS)

GRUKHINA, A.K.; KEVINA, I.D.; MARYSHV, V.V.; SATAROVA, L.M.;  
SU KHIN-GUJ [Su Hung-kuei]; KALICHEVA, I.S.; FIRSOVA, I.P.

Further study of the products of iron spallation by  
660 MeV protons. Radiokhimiia 5 no. 6:721-732 '63.  
(MIA 12:7)

YUFEREV, V.M., inzh. (Novosibirsk); FIRSOVA, L.D., inzh.;  
ERLIKH, V.M., inzh.

Some problems in the electrification of track maintenance  
and repair operations. Zhel. dor. transp. 45 no.4:44-45  
(MIRA 16:4)  
Ap '63.

(Railroads—Maintenance and repair)  
(Railroads—Electric equipment)

SAMEYSHCHEV, A.A., inzh.; SOKOL'SKIY Ye.I., inzh.; FIRSOVA, L.N., inzh.;  
TIMCHENKO, N.K., inzh.; NISNEVICH, M.L., kand.tekhn.nauk

Concentrating limestone with the aid of a mechanical classifier.  
Stroi. mat. 7 no.4:23-26 Ap '61. (MIRA 14:5)  
(Limestone) (Sorting devices)

NISNEVICH, M.L., kand.tekhn.nauk; TIMCHENKO, N.K., inzh.; FIRSOVA, L.N.,  
inzh.; KALASHNIKOVA, T.V., inzh.; KUZ'MINA, V.M., inzh.

Dressing limestone found near Moscow so as to obtain high-quality  
aggregates for concrete. Sbor. trud. NIIZHelezobetona no.3:3-41  
'60. (MIRA 15:2)  
(Limestone) (Aggregates (Building materials))

FIRSOVA, L.P., Cand Chem Sci -- (diss) "Measuring the vapor pressure of ~~the~~ oxides of lithium, beryllium, boron, silicon, and lead." Mos, 1959, 8 pp (Mos State Univ im M.V. Lomonosov)  
150 copies (KL, 34-59, 112)

- 23 -

S/076/60/034/05/15/038  
B010/B002

AUTHORS: Nesmeyanov, An. N., Firsova, L. P.

TITLE: Measurement of the Pressure of the Saturated Vapor of Boric Anhydride

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 5,  
pp. 1032-1035

TEXT: The vapor pressure of boric anhydride ( $B_2O_3$ ) was measured by Knudsen's effusion method. Experiments were made in a system described in Ref. 9. The work was done in a vacuum of from  $1 \cdot 10^{-5}$  to  $1 \cdot 10^{-6}$  torr. A special control was made on dissociation, and it was found that a maximum of 3% of  $B_2O_3$  dissociates to BO and O. The measured values for vapor pressure at  $1299-1515^{\circ}K$  are given in Table 1. The following equation was derived by the method of least squares:  
 $\log p_{(torr)} = -16805/T + 9.44$ .  $\Delta H_f^{\circ} = 89.32$  kcal/mole was calculated from the slope of the straight line of the pressure dependence on temperature.  $\checkmark B$

Card 1/2

Measurement of the Pressure of the Saturated Vapor of Boric Anhydride.      S/076/60/034/05/15/038  
B010/B002

The evaporation heats (Table 2) were calculated at 0°K proceeding from the values of vapor pressure and the values of thermodynamic functions obtained from the IGI AN SSSR (IGI AS USSR). A comparison between the values obtained for the evaporation heat and various data contained in publications (Table 3) shows that the values obtained are in good agreement with effusion measurements (Refs. 2, 5, 6), but deviate strongly from measured values obtained by the dynamic method (Refs. 3, 7). There are 3 tables and 12 references: 1 Soviet, 7 American, 1 German, 1 Italian, and 1 Japanese.

SUBMITTED: July 4, 1958

✓B

Card 2/2

NESMEYANOV, An.N.; FIRSOVA, L.P.; ISAKOVA, Ye.P. (Moscow)

Measurement of the saturated vapor pressure of lead oxide.  
Zhur.fiz.khim. 34 no.6:1200-1204 Je '60.  
(MIRA 13:7)

1. Moskovskiy gosudarstvennyy universitet im. M.V.  
Lomonosova.  
(Lead oxide) (Vapor pressure)

NESMEYANOV, An.N.; FIRSOVA, L.P.; ISAKOVA, Ye.P.

Measurement of the saturated vapor pressure of solid lead oxide by  
means of the flow method. Zhur. fiz. khim. 34 no.8:1699-1701 Ag '60.  
(MIRA 13:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
(Lead oxide) (Vapor pressure)

84244

152142 2209,2308

S/076/60/034/009/002/022  
B015/B056AUTHORS: Nesmeyanov, An. N. and Firsova, L. P.TITLE: Determination of Vapor Pressure in Equilibrium With Solid  
Silicon DioxidePERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 9,  
pp. 1907-1910

TEXT: The vapor pressure over solid silicon dioxide ( $\alpha$ -tridimitite) was measured within the temperature range of from  $160^{\circ}$  to  $1739^{\circ}$  K according to the integral variant of the Knudsen effusion method on a previously described vacuum device (Refs. 1, 2). The evaporated substance was condensed on a water-cooled cap, was dissolved in NaOH, and the silicon was colorimetrically determined. From the result of the colorimetric analysis, the summational diffusion rate of all vapor components was calculated (Table 1, results). On the assumption that the vapor phase contains only SiO and O<sub>2</sub> molecules, the heat of formation of SiO<sub>2</sub> gas was calculated by using the values for the heat of formation of the components (made available by the IGI AN SSSR (IGI AS USSR) (Table 2). The values

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Card 1/2

84244

Determination of Vapor Pressure in Equilibrium  
With Solid Silicon Dioxide S/076/60/034/009/002/022  
B015/B056

obtained agree comparatively well with data given in publications, among  
others also with data given by P. Gel'd and M. Kochnev (Ref. 6). There  
are 2 tables and 9 references: 4 Soviet, 3 US, and 2 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: September 6, 1958

✓

Card 2/2

86787

*11.22.21, also 2308, 2209, 1211*  
S/076/60/034/011/023/024  
B004/B064

AUTHORS: Firsova, L. P. and An. N. Nesmeyanov

TITLE: Degree of Dissociation and Partial Vapor Pressures of Lithium, Beryllium, Boron, Silicon, and Lead Oxides

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 11,  
pp. 2615-2616

TEXT: In previous papers (Refs. 1,2) the authors have published the results of measurement of the pressure of LiO<sub>2</sub>, BeO, SiO<sub>2</sub>, and PbO vapors that were in equilibrium with the solid oxides. The determination was made by the Knudsen-Langmuir method. The thermal dissociation was not taken into account when evaluating the experimental data. The present paper interprets the data in consideration of the thermal dissociation. This is shown by the example of LiO<sub>2</sub>. The equation



Card 1/3

86787

Degree of Dissociation and Partial Vapor  
Pressures of Lithium, Beryllium, Boron,  
Silicon, and Lead Oxides

S/076/60/034/011/023/024  
B004/B064

the dissociation constant  $K_p$ , the total number  $n$  of the moles of evaporated oxide, the surface  $s$  of the effusion opening and/or the surface of the sample and the time  $t$  of exposition, and the following is written down:  $p_{Li} = 2.553 \cdot 10^{-2} (n/st) 2s\sqrt{TM_{Li}}$ . By inserting the corresponding expressions also for  $p_{Li_2O}$  and  $p_{O_2}$  into the equation

$$K_p = p_{Li}^2 p_{O_2}^{1/2} / p_{Li_2O} \quad \text{the following is obtained:}$$

$$K_p^2 = \left\{ x^5 n^3 T^{3/2} / [(1-x)^2 (st)^3] \right\} \cdot (2.2553 \cdot 10^{-2})^3 \left( \frac{M_{Li}^2 M_{O_2}^{1/2}}{M_{Li_2O}} \right) \quad (1).$$

Similar equations are derived for the other oxides. For temperatures between 1000 and 2500°K, the degrees of dissociation are so low, except for  $SiO_2$ , that the results do hardly differ from those given in Refs. 1,2. For  $SiO_2$ , 90% of which dissociate, the data hold on the assumption that

Card 2/3

86787

Degree of Dissociation and Partial Vapor  
Pressures of Lithium, Beryllium, Boron,  
Silicon, and Lead Oxides

S/076/60/034/011/023/024  
B004/B064

only dissociation products evaporate. There are 1 table and 2 Soviet  
references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V.  
Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: January 23, 1960

Card 3/3

5.4100 (043,1087)

S/076/60/034/012/009/027  
B020/B067

AUTHORS: Firsova, L. P. and Nesmeyanov, An. N.

TITLE: Determination of the Condensation Coefficients of Lithium-,  
Beryllium-, Boron-, Silicon-, and Lead Oxides

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 12,  
pp. 2719-2722

TEXT: The condensation coefficients of beryllium- and lead oxide were determined by comparing the measured evaporation rates on the free surface in vacuo with the data on vapor pressure which is in equilibrium with the oxides concerned, and by means of the Knudsen methods (Table 1). To determine the condensation coefficient of lithium-, boron-, and silicon oxide, the vapor pressure of these compounds was measured by the Knudsen method, i.e., by using effusion outlets with different cross sections and drags (Table 2). The authors also studied the time dependence of the measured vapor pressures of these compounds (Fig. 1). Since the results of the effusion measurements and the data obtained according to Langmuir were identical within the limits of measuring errors (Table 1) it can be

Card 1/3

88258

Determination of the Condensation Coefficients S/076/60/034/012/009/027  
of Lithium-, Beryllium-, Boron-, Silicon-, and BO20/BO67  
Lead Oxides

assumed that the condensation coefficients of beryllium and lead oxide are almost unity. The best method of determining the condensation coefficients is the direct measurement of the surface temperature of the material evaporated. Therefore, either the surface temperature must be measured directly or a correction has to be made by taking account of the fact that the temperature difference between mass and material surface depends on the diameter of the effusion outlet. The authors used both methods of temperature measurement. The results of measurements with different effusion outlets were evaluated by the following equation:

$$\alpha = (p' A' - p'' A'') / [S(p'' - p')] \quad (1)$$

where  $p'$  and  $p''$  denote the apparent pressures when using effusion outlets of a diameter of  $A$  and  $A''$ ;  $S$  denotes the cross section of the Knudsen chamber. The results of calculations are given in Table 2. Experiments of determining the dependence of  $P_{Kn}$  on  $t_i$  also permitted a qualitative estimation of the condensation coefficients. The experimental results indicate that the condensation coefficients of all oxides studied, with the exception of  $\text{SiO}_2$ , are almost unity. The deviation is so small that it

Card 2/3

0020

Determination of the Condensation Coefficients    5/076/60/034/012/009/027  
of Lithium-, Beryllium-, Boron-, Silicon-, and    B020/B067  
Lead Oxides

may be neglected when calculating the vapor pressure. No definite conclusion has as yet been drawn concerning the condensation coefficient of silicon dioxide because determinations have been made only by one method with low measuring accuracy. There are 1 figure, 2 tables, and 12 references: 5 Soviet, 6 US, and 1 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: March 13, 1959

Card 3/3

NESMEYANOV, A.N.; FIRSOVA, L.P.; REYNKHARDT, M.; FORYS', M.;  
KURGANOVА, S.Ya.

Preparation of indole tagged with carbon-14 by the hot synthesis  
method. Radiokhimia 4 no.6:739-740 '62. (MIRA 16:1)  
(Indole) (Carbon--Isotopes)

FIRSOVA, L.P.; BARAKAT, M.F.

Measurement of the activity of the components of complex  
mixtures of organic substances containing carbon-14. Radio-  
khimiia 4 no.6:740-742 '62. (MIRA 16:1)  
(Chromatographic analysis) (Carbon-isotopes)  
(Organic compounds)

NESEMEYANOV, An.N.; VIRSOVA, L.P.

Hot synthesis of compounds tagged with radioactive carbon.  
Usp.khim. 31 no.12:1453-1477 D '62. (MIRA 16:2)

1. Moskovskiy gosudarstvennyy universitet, khimicheskiy  
fakul'tet, kafedra radiokhimii.  
(Chemistry, Organic-Synthesis) (Carbon-Isotopes)

FIRSOVA, L.P.

Kinetics of the establishment of steady vapor pressure in confined spaces and in the spaces of effusion chambers. Zhur.fiz.khim.  
36 no.10:2224-2227 0 '62. (MIRA 17:4)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

NESMEJANOV, A.N. [Nesmeyanov, A.N.]; FIRSOVA, L.P.

Hot synthesis of the compounds marked with radioactive carbon.  
Analele chimie 18 no.3:33-61 J1-S '63.

FILISOVA, L.P.

Determination of the condensation coefficient from the rate of saturation of a confined space or of the effusion chamber space. Zhur. fiz. khim. 36 no.6:1332-1334 Je'62 (MIRA 17:7)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

FIRSOVA, L. P.; NESMEYANOV, A. N.; BARAKAT, M. F.; FORYS, M.

"The interaction of C<sup>14</sup> recoil atoms in binary mixtures."

report presented at IAEA Symp on Chemical Effects Associated with Nuclear Reactions and Radioactive Transformations, Vienna, 7-11 Dec 64.

BARAKAT, M.F.; FIRSOVA, L.P.; NESMEYANOV, An.N.

Reaction of carbon-14 recoil atoms with pyridine and its homologs.  
Radiokhimia 6 no.5:605-610 '64.  
(MIRA 18:1)

Reaction of carbon-14 recoil atoms with pyrrole, 2-methylpyrrole, and  
piperidine. Ibid.:626-630

FIRSOVA, L.P.; FORSY, M.

Mechanism of C<sup>14</sup> recoil atoms in systems containing indole. Radiokhimia  
6 no. 5:610-616 '64. (NIRA 18:1)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9

BARAKAT, M.F.; FIRSOVA, L.P.; NESMEYANOV, An.N.

Reaction of C<sup>14</sup> recoil atoms in mixtures containing  $\alpha$ -picoline. Radio-  
khimiia 7 no.3;361-363 '65. (MIRA 18:7)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9"

L 20604-66 EWT(m)/EWP(J)/EWA(h)/ENA(l) RM

ACC NR: AP6010715

SOURCE CODE: UR/0189/66/000/001/0060/0064

51  
48  
BAUTHOR: Kuklin, Yu. S.; Firesova, L. P.; Nesmeyanov, A. N.

ORG: Department of Radiochemistry, Moscow State University (Kafedra radiokhimii Moskovskogo gosudarstvennogo universiteta)

TITLE: The reaction of accelerated tritons with benzene in the solid phase

SOURCE: Moscow. Universitet. Vestnik. Seriya II. Khimiya, no. 1, 1966, 60-64

TOPIC TAGS: radiolysis, quantum yield, ion beam, radiochemical reaction

ABSTRACT: This paper deals with the action of 2.5 kv tritons on frozen benzene. The nature of chemical and radiological effects produced by accelerated ions is similar to that of "hot" atoms from nuclear reactions, e. g.,  $\text{Li}(\text{n},\alpha)\text{T}$ . The advantage of using accelerated ions, aside from simpler experimental conditions, is that the need to compensate for radiolysis by gamma rays, neutrons and alpha particles is obviated. The 2.5 kv tritons employed in this study have much lower energies than the recoil tritium atoms from nuclear reactions. The following equipment was used:

Card 1/3

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ACC NR: AP6010715

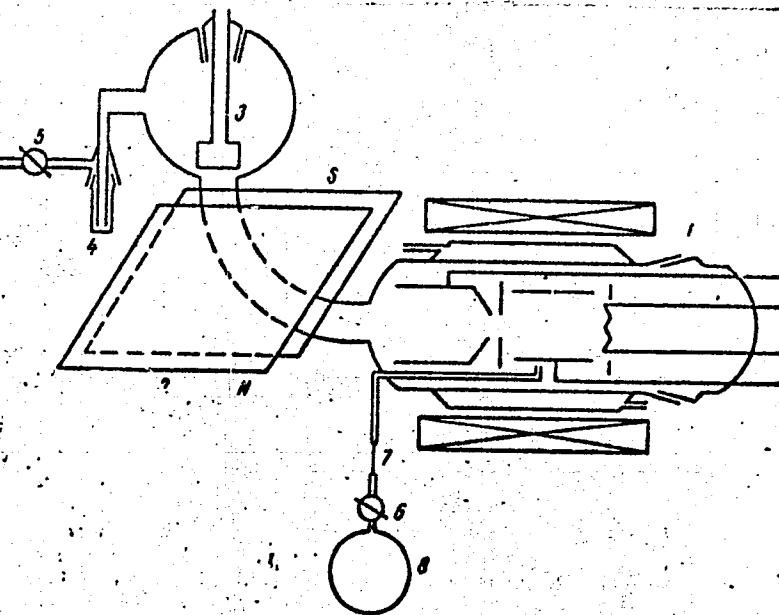


Fig. 1. Ion mass separator

1 - Ion source; 2 - magnet;  
3 - target; 4 - cold trap;  
5, 6 - stopcocks; 7 - capil-  
lary; 8 - tritium container.

Card 2/3

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ACC NR: AP6010715

3

The target, covered with sublimed benzene from trap 4, was irradiated for 30 minutes; the irradiated sample, after transfer to the cold trap, was subjected to vapor-phase chromatography. The progress of elution was registered with a scintillation counter. The results showed that 2.5 kV tritons produce considerable destruction of the benzene molecule, forming in the process cyclohexene, 1,3-cyclohexadiene, 1,4-cyclohexadiene, and a number of unidentified products. The unidentified fractions, with one exception, had longer retention times than the cyclohexenes or benzene (the stationary phase was di(2-cyanoethyl) ether/fire brick). A considerably larger amount of label is incorporated than in experiments with recoil atoms from Li( $n,\alpha$ )T. Similarly the radiolytic yields are larger than those obtained with recoil atoms. Orig. art. has: 2 figures [VS] and 2 tables.

SUB CODE: 07/ SUBM DATE: 06Jan65/ ORIG REF: 003/ OTH REF: 008/ ATD PRESS:

4224

Card 3/3 BK

FIRSOVA, L. P., Cand of Med Sci -- (aiss) "Functional Changes of the Liver According to the Data Obtained on Patients Afflicted With Lung Tuberculosis During Treatment With Antibacterial Preparations," Minsk, 1959, 12 pp (Acad of Med Sci USSR) (KL, 6-60, 126)

FIRSOVA, L.P.

Some changes in vitamin B<sub>12</sub> metabolism in patients with pulmonary  
tuberculosis. Zdrav. Belor. 5 no.9:16-18 S '59. (MIRA 12:12)

1. Zaveduyushchaya terapevticheskim otdelom Belorusskogo nauchno-  
issledovatel'skogo instituta tuberkuleza.  
(TUBERCULOSIS) (CYANOCOBALAMINE)

FIRSOVA, L.P., aspirant

Some changes in the status of the antitoxic function of the liver in pulmonary tuberculosis during treatment with antibacterial preparations. Probl.tub. 37 no.2:46-51 '59.  
(MIRA 12:9)

1. Iz Instituta tuberkuleza AMN SSSR (dir.Z.A.Lebedeva,  
nauchnyy rukovoditel' - doktor med.nauk F.L.Elinson).

(TUBERCULOSIS, PULMONARY, ther.

antibact. prep., eff. on antitoxic funct.  
of liver (Rus))

(LIVER, physiol.

antitoxic funct. in pulm. tuberc., eff. of  
antibact. prep. (Rus))

FIRSOVA, L.P.

Changes in the diameter of the erythrocytes in pulmonary tuberculosis patients during treatment with antibacterial drugs. Zdrav. Belor. 6 no.3:47-48 Mr '60. (MIRA 13:5)

1. Belorusskiy nauchno-issledovatel'skiy institut tuberkuleza  
(direktor M.N. Lomako).  
(ERYTHROCYTES) (TUBERCULOSIS)

FIRSOVA, L.P., kand.med.nauk; KUGEL', M.B.; PUTAN, A.A.

Artificial pneumothorax combined with antibacterial preparations.  
Zdrav.Bel. 7 no.11:5-7 N '61. (MIRA 15:11)

1. Iz Belorusskogo nauchno-issledovatel'skogo instituta tuberkuleza  
(dir. - kand.med.nauk M.N.Lomako), I protivotuberkuleznogo  
dispansera Minska (glavnnyy vrach L.I.Irger) i 2 protivotuberkuleznogo  
dispansera Minska (glavnnyy vrach A.A.Putan).  
(TUBERCULOSIS) (PNEUMOTHORAX)

FIRSOVA, L.P., kand.med.nauk; KOLB, V.G., kand.med.nauk

Frequency and importance of doubtful tuberculin reactions.  
Zdrav.Bel. 8 no.12:11-13 D '62. (MIRA 16:1)

1. Iz Belorusskogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. - kand.med.nauk M.N.Lomako).  
(TUBERCULIN--TESTING)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9

*Firsov, M.I.*  
MARKOV, M.V.; FIRSOVA, M.I.

Trees and shrubs of the Volga and Kama bottomlands within the  
boundaries of the Tatar A.S.S.R. Uch.zap.Kaz.un. 115 no.5:5-94  
'55. (MIRA 10:3)

(Tatar A.S.S.R.--Forests and forestry)  
(Alluvial lands)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413220019-9"

FIRSOVA, M.I.:PARSHAKOVA, A.L.; POPOVA, N.K.

Establishment of stable forest shelterbelts in the Tatar A.S.S.R.  
Uch.zap.Kaz.115 no.8:55-62 '55. (MIRA 10:3)

1. Deystvitel'nyy chlen Obshchestva yestestvoispytateley  
(Tatar A.S.S.R.--Windbreaks, shelterbelts,etc)

FIRSOVA, M.I., kand.biologicheskikh nauk

School Biology Olympiad. Biol. v shkole m.3:80-81 My-Je '62.

1. Kazanskiy gosudarstvennyy universitet imeni. V.I. Ul'yanova-Lenina.  
(Biology---Competitions) (MIRA 15:7)

25816. FIRSOVA, M.K. K voprosu o polevoy uskhozhesti nedozrevshikh semyan yachmenya u chitinskoy oblasti. (Po povodu stat' i T.S. Rzhanova "Polevaya uskhozhest' fiziologicheskinedozrevshikh semyan yachmenya" v zhurn. "Selektsiya i semenovodstvo", 1949, № 1 ). Selektsiya i semenovodstvo, 1949, № 8, S. 45-47.

SO: Letopis' Zhurnal'nykh Statey Vol. 34, Moskva 1949

FIRSOVA, M. K.

25816

K voprosu o polevoy vskhozhesti hedozrevshiky semyan yachmenya v Chitinskoy oblasti  
(popovodv stat'i. T. S. Rzhanova: "Polevaya bskhozhast' fiziologicheski nedoarev  
shikh semyan yachmenya" v zhurm. "Selektsiya i semenovodstvo", 1949, No. 11.  
Selektsiya i semenovodstvo, 1949, No. 8, s. 45-47.

SO: Letopis' No. 34

FIRSOVA, M. K.

37406. O Plenchatosti Zerna Sortov Iarovogo Iachmenya. Trudy Vsesoyuz. Nauch-Issled. In-ta Zerna i Produktov Ego Pererabotki, vyp. 19, 1949, s. 93-110.—  
Bibliogr: 28 Nazv.

SO: Letopis' Zhrunal'nykh Statey, Vol. 7, 1949

R SOVIET, M.R.

U S S R .

7461 A New Preparation for Treatment Such as Nutraceuticals  
dru protilivnicheskikh zemelan. (Russian) M. S. Pintova. Dzal.  
zhurnal Nauchnogo i Prakticheskogo Obrabotki Sredstv Zemel'noj Kultury  
no. 2, Feb., p. 59-62

Discusses effectiveness of treatment methods such as  
nutraceuticals for the treatment of various diseases.

FIRSOVA, M.K., kand. sel'skokhozyaystvennykh nauk

Preparation of seeds before sowing. Zemledelie 7 no.2:83-89  
F '59. (MIRA 12:3)  
(Seeds)

45679

241780

S/070/63/008/001/020/024  
E132/E460

AUTHORS: Zubov, V.G., Firsova, M.M., Molokova, T.M.  
TITLE: The temperature dependence of the dielectric  
permeability of crystalline and fused quartz

PERIODICAL: Kristallografiya, v.8, no.1, 1963, 112-114

TEXT: In order to clear up discrepancies in the earlier literature, measurements were made of the dielectric constants  $\epsilon_{11}$  and  $\epsilon_{33}$  of quartz at 1 Mc/s over the temperature range 20 to 700°C. Y- and Z-cut plates about 20 x 20 x 4 mm having platinized surfaces were used. Fused quartz showed hardly any rise in  $\epsilon$  with temperature and for crystalline  $\alpha$ -quartz the change was slight until 500°C. There is a slight discontinuity in  $\epsilon_{11}$  at about the  $\alpha$ - $\beta$  transition temperature of 573°C.  $\epsilon_{33}$  did not rise as rapidly as early workers found for 1 to 90 Kc/s. To get the best values of  $\epsilon_{33}$  specimens of quartz were cleaned by L.G.Chentsova's method of applying a constant potential of 2 kV/cm along the optic axis at 700°C. This had the effect of reducing  $\epsilon_{33}$  steadily with each treatment until it became substantially the same as  $\epsilon_{11}$  and also showed a small discontinuity at 573°C. The effect of foreign ions in the structure on  $\epsilon_{33}$  is

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Card 1/2

The temperature dependence ... S/070/63/008/001/C20/024  
thus very marked and leads to variable results. There are  
2 figures. E132/E460

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Card 2/2

## Interaction of natural oscillations in crystals

*Kristallografiya*, v. 9, no. 4, 1964, 459-465.

72104 AGS: crystal, oscillation, nonlinear equation, plastic wave, longitudinal transverse wave, quartz crystal, diffire, ... and the problem oscillation

A study of the system of non-linear equations has led to the following results. An approximate solution can be obtained by the following iterative process:

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possible polarizations and also quasilongitudinal and quasi transverse waves.  
Quasilongitudinal and quasitransverse waves excite one another.  
The effect is obtained by the scattering "in plane".

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